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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,298	07/29/2003	Sheldon Joseph Grywacheski	16448-US	6459

7590 01/21/2005

Patent Department  
DEERE & COMPANY  
One John Deere Place  
Moline, IL 61265-8098

EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/629,298

Applicant(s)

GRYWACHESKI ET AL.

Examiner

Nathan S Mammen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,266,560 to Powell, cited by Applicant, in view of U.S. Patent No. 6,296,566 to Tanis et al., cited by the examiner, or, alternatively, as being unpatentable over the Tanis '566 patent in view of the Powell '560 patent.

The Powell '560 patent discloses an agricultural harvester having an axial rotor (Fig. 2) with an axis (55) of rotation. The rotor comprises a drum having a rearward cylindrical portion (60) and a forwardly-extending frusto-conical portion (67). The rotor further includes an infeed section (25) for receiving harvested crop material and a crop processing section (generally, 63) for processing harvested crop material. The crop processing section includes at least one crop processing element (62) located on the frusto-conical portion. The crop processing element is parallel to the axis of rotation, and the infeed element (25) and the crop processing element (62) are helically oriented and helically aligned. The crop processing element (62) is a threshing element and it sweeps a cylindrical path. The infeed element (25) is a helical infeed flight. A second crop processing element (63) is located in the cylindrical portion of the drum and sweeps a cylindrical path.

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The Tanis '566 patent discloses an agricultural harvester having an axial rotor (64) with an axis of rotation (A). The rotor comprises a drum (64) having a rearward cylindrical portion and a forwardly-extending frusto-conical portion (62). The forward frusto-conical portion is an infeed section having infeed element (32) comprised of a helical flight. The rotor includes a crop-processing section having crop processing elements (not shown).

What the Powell '560 patent does not disclose is that the infeed section is located on the frusto-conical portion. Instead, the Powell '560 patent utilizes a cylindrical infeed section that feeds to the frusto-conical portion. However, the Tanis '566 patent teaches that it is known in the art to provide a frusto-conical infeed section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the agricultural harvester of the Powell '560 patent with a frusto-conical infeed as taught by the Tanis '566 patent, in order to improved the feeding of harvested crop material into the drum. See Tanis, col. 5, lines 21-35.

Alternatively, and distinctly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the agricultural harvester of the Tanis '566 patent with the crop processing elements located on the frusto-conical portion, as taught by the Powell '560 patent, in order to help disperse the crop material throughout 360 degrees of the rotor casing and to begin the threshing action. See Powell, col. 6, lines 5-9.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-12, 14-20 have been considered but are moot in view of the new ground(s) of rejection.

As stated above, the claimed invention is obvious over the Tanis and Powell patents. While the Powell patent does not disclose a frusto-conical infeed, the Tanis does disclose this

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feature and provides motivation why an ordinary artisan would want a frusto-conical infeed.

Similarly, while the Tanis patent does not disclose providing a frusto-conical transition region with crop processing elements, the Powell patent does disclose this feature and likewise provides motivation why an ordinary artisan would want the claimed crop processing elements on a frusto-conical portion of a threshing drum.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

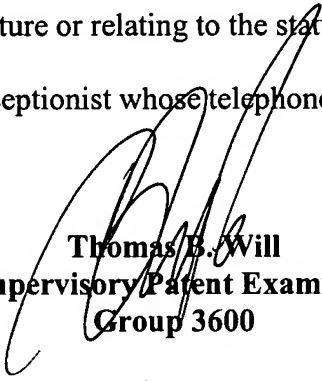
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1113.



**Thomas B. Will**  
**Supervisory Patent Examiner**  
**Group 3600**

**NSM**  
**1/10/05**

**Nathan S. Mammen**